THE OHIO JOURNAL OF SCIENCE

VOLUME 66-1966

JANE L. FORSYTH Editor-in-Chief

PUBLISHED AT COLUMBUS, OHIO, BY
THE OHIO STATE UNIVERSITY
and
THE OHIO ACADEMY OF SCIENCE

THE OHIO JOURNAL OF SCIENCE

JOINT ADMINISTRATIVE BOARD

For The Ohio State University

For the Ohio Academy of Science

RALPH H. DAVIDSON

A. G. McQuate James D. Crum

MALCOLM WEISS

JOURNAL STAFF

JANE L. FORSYTH	Editor-in-Chief
David H. Stansbery	Secretary-Treasurer
EMANUEL D. RUDOLPH	. Book Review Editor

THE OHIO JOURNAL OF SCIENCE

Is published jointly by The Ohio State University and The Ohio Academy of Science

CONTENTS OF VOLUME 66

NUMBER 1-JANUARY

NOMBER 1—JANOARI	
The Botanical Pursuits of John Samples, Pioneer Ohio Plant Collector (1836–1840)	1
Ronald A. Stuckey Studies of the Gyponinae: A Synopsis of the Genus Acusana DeLong (Homoptera: Cicadellidae)	42
Further Studies on Inhibition of Growth of Spores of Penculium sp. and Aspergulus sp. Isolated from the White Molds of Silages	64
Olaf H. Prufer Periodicity in Oviposition of Ostrinia nubilalis (Hbn.) (Lepidoptera: Pyraustidae)	68
Comments on the Taxonomy of the Three-Spined Stickleback, Gasterosteus aculeatus	76
Linnaeus	81 87
A List of Reviewers of Papers Appearing in The Ohio Journal of Science During 1965 Book Reviews	89 95 80, 96
NUMBER 2—MARCH	
A SYMPOSIUM ON THE GEOLOGY OF INDUSTRIAL	
LIMESTONE AND DOLOMITE	
Foreword. Robert L. Bates Geological Communication in the Industrial Minerals Robert L. Bates Role of a State Geological Survey. Lawrence F. Rooney A Railroad Geologist Looks at Limestone and Dolomite Raymond S. Shrode High-Calcium Limestone Deposits of Pennsylvania	97 98 101 110
F. M. Swain, J. G. Palacas and J. C. Kraft New York Cement Producers Adjust to Geologic Complexities Severn P. Brown Limestone Deposits vs. Beneficiation John A. Ames Importance of Cement Market Characteristics to the Industrial Geologist George H. K. Schenck and Henry N. McCarl	116 123 131
Limestone and Dolomite: Geologists and Percentage Depletion Allowances	146
Water, Clay and Rock Soundness	153 168
N. B. Aughenbaugh and R. W. Lounsbury Corps of Engineers Procedure in the Development of a New Limestone or Dolomite	179
Source James E. Brewer	188
Significance of Chert in Limestone and Dolomite Used as Concrete Aggregate William A. Kneller	191
Analysis of Plankton Ingested by Stizostedium vitreum vitreum (Mitchill) Fry and Concurrent Vertical Plankton Tows from Southwestern Lake Erie, May 1961 and May 1962 Matthew H. Hohn	193
Some Chemical Reactions in Silica Gels I. Formation of Mercuric Iodide Crystals	
Philip F. Kurz The Suspensory Muscles in a Tipulid Larva, Tipula abdominalis (Diptera: Tipulidae)	198
Observations on the Calls of the Grasshopper Mouse (Onychomys leucogaster)	209
David G. Ruffer	219

NUMBER 3-MAY

Origin of the Natural Science Sections of the Ohio Academy of Science Ralph W. Dexter Origin of the Physical Science Sections of the Ohio Academy of Science. Ralph W. Dexter Peters Cave: Two Woodland Occupations in Ross County, Ohio Olaf H. Prufer and Douglas H. McKenzie Diurnal Distribution of Phytoplankton From a Single Station at the Mouth of the James River (Virginia)	225 229 233 253	
Engine Allen W. Scholl The Genus Silphium in Ohio. T. Richard Fisher The Orobanchaceae of Ohio. Karl R. Valley and Tom S. Cooperrider Eriophyid Mites New To Ohio. H. Y. Forsythe, Jr. and Roy W. Rings Weathering in a Sangamon Paleosol. A. H. Beavers and Robert L. Jones A Classification of Extraterrestrial Spherules Found in Sedimentary Rocks and Till	256 259 264 265 267	
Some Chemical Reactions in Silica Gels II. Formation of Crystals of a Basic Mercuric Chloride, HgCl ₂ ·2HgO	274 284 312 317	
The Incorporation of C ¹⁴ -Labeled Phenylalanine, Tyrosine, and Glucose into Corn Roots Harry H. Johnston An Improved Method for Identification of Amino Acids in Descending Paper	327	
Chromatography	330 332	
Chemical Reactions in Electrical Plasmas	334	
Region J. M. Ramsey Genetics of an L. Venation Mutant in Drosophila melanogaster. I. Mode of Inheritance and Expression James H. Carlson A New Species of Zeriodoneus from Utah (Hemiptera: Lygaeidae)	340	
Charles V. Reichart, O. P. Contrasts in the Crystallization of Nickel and Cobalt Phosphates in Silica Gels	347	
Philip F. Kurz Book Reviews. 266, 273, 283, 311, 346, 348, 351,	349 , 352	
NUMBER 4—JULY		
Milestones: Ohio Academy of Science, 1891–1966. Ralph W. Dexter	353	
Mineralogical and Physical Characteristics of Till in Moraines of Lasalle County, Illinois Robert L. Jones, A. H. Beavers, and J. D. Alexander Seasonal and Taxonomic Differences in the Size and Activity of the Thyroid Glands in	359	
Seasonal and Taxonomic Differences in the Size and Activity of the Thyroid Glands in Birds	369	
Forest History of Ohio. I. Radiocarbon Dates and Pollen Stratigraphy of Silver Lake,	380	
Logan County, Ohio. J. Gordon Ogden, III The Genus Diognites (Robber Flies) in Eastern United States (Diptera: Asilidae)	387	
Some Measurements on the Quantum Yield Temperature Coefficient of the Uranyl Oxalate Actinometer at 254 M μ	401 421 426	
The Kansan Glaciation in Southeastern Indiana. Ansel M. Gooding New Solenochilus Species From the Conemaugh Series of Eastern Ohio. Harold O. Frontz The Ohio Academy of Science—1966–1967.	433	

NUMBER 5-SEPTEMBER

Origin of the Medical Sciences Section of The Ohio Academy of Science Ralph W. Dexter	453
Origin of the Social Science Sections of The Ohio Academy of Science Ralph W. Dexter	455
Endelocrinus kieri, A New Crinoid from the Ames Limestone	459
On the Occurrence of Oklahomacrinus in Ohio and Timor	464
Early Natural History of a Forested Area Near Dover, Ohio Robert H. Giles, Jr.	469
Influence of Ascorbic Acid and of Thiamine on Physiological Responses on Guinea Pigs to	
High Ambient Temperature Francis J. Zeman and Charles G. Wilber	474
Wing and Tail Molt in the Reeves Pheasant Charles F. Mueller and Henri C. Seibert	489
Optical Radar and Passive Optoelectronic Ranging	496
The Acute Toxicity of Some Pesticides to Fish	
Quentin H. Pickering and Croswell Henderson	508
Toxicity of a Microcystis Waterbloom from an Ohio Pond	
Thomas E. Maloney and Richard A. Carnes	514
Postnatal Development in Peromyscus maniculatus-polionotus Hybrids I. Developmental	
Landmarks and Litter Mortality	518
Enterovirus Plaque Technique: Utilization of Maintenance Medium on Agar Overlay	
Without Neutral Red James R. Frey	523
Occurrence of the Hoary Bat (Lasiurus cinereus) in Ohio	527
Aquatic Insects as Inhalant Allergens: A Review of American Literature E. B. Henson	529
A Note on the Freshwater Polychaete, Manayunkia speciosa Leidy, from California and	
Oregon	533
New Species of Ostracodes from the Silica Formation (Middle Devonian) in Northwestern	
Ohio	536
Book Reviews	548

NUMBER 6-NOVEMBER

A Second Experiment in Self-Instruction in General Biology Edward J. Kormondy	549	
Studies of the Gyponinae: A Synopsis of the Genus Hamana DeLong (Homoptera:		
Cicadellidae) Dwight M. DeLong and Paul H. Freytag	554	
Host Range of the Erysiphaceae of Ohio	570	
A New Locality Record for the American Brook Lamprey, Lampetra lamottei (LeSueur) In	200	
Ohio. Richard A. Zura and Linda B. Scothorn	581	
Lake Arkona-Whittlesey and Post-Warren Radiocarbon Dates from "Ridgetown Island"		
in Southwestern Ontario	582	
Preparation and Analysis by Ion Exchange Techniques of Sodium Salts of Mandelic Acid		
Derivatives	587	
Embedding Plant Material in Liquid Synthetic Resin	590	
Two New Spider Records for Ohio	591	
Convex-Concave Landslopes: A Geometrical Study	592	
Diplocardia varivesicula, A New Megascolecid Earthworm from Indiana (Oligochaeta)	002	
W. R. Murchie	609	
Sexual Recognition in Adult Erythemis simplicollis	613	
Spiders in Old Insect Galls on Goldenrod	618	
Aquatic Phycomycetes Collected from the Athens State Hospital Ponds	010	
G. L. Crane and M. T. Vermillion	619	
Index to Volume 66.	623	
Book Notices		

